PATENT
Docket No. 5000-4679

Express Mail Label No. EJ146544085US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

UTILITY APPLICATION AND APPLICATION FEE TRANSMITTAL (1.53(b))

Box Patent Application - FEE
ASSISTANT COMMISSIONER FOR PATENTS
Washington, D.C. 20231

Sir:

Transmitted herewith for filing is the patent application of

Named Inventor(s) and Address(es): Mamoru KUZUYA, Hideaki SHIMA and Masayasu ARAKAWA

all of Kariya-shi, Aichi-ken, Japan

For: **AXLE HOUSING ASSEMBLY**

Enclosed are:

[X] 12 page(s) of specification, 1 page(s) of Abstract, 2 page(s) of claims

[X] 3 sheets of drawing [X] formal [ ] informal

[ ] 4 page(s) of Declaration and Power of Attorney

[ ] Unsigned
[X] Newly Executed
[ ] Copy from prior application

[ ] Deletion of inventors including Signed Statement under 37 C.F.R. § 1.63(d)(2)

[ ] Incorporation by Reference: The entire disclosure of the prior application, from which a copy of the combined declaration and power of attorney is supplied herein, is considered as being part of the disclosure of the accompanying application and is incorporated herein by reference.

[ ] Microfiche Computer Program (Appendix)

[ ] _____ page(s) of Sequence Listing

[ ] computer readable disk containing Sequence Listing
[ ] Statement under 37 C.F.R. § 1.821(f) that computer and paper copies of the Sequence Listing are the same

[X] Claim for Priority (Claim to Convention Priority)

[X] Certified copy of Priority Document

[ ] English translation documents

[X] Information Disclosure Statement

[X] Copies of __2__ cited references, including Form PTO-1449

[ ] Copy of PTO-1449 filed in parent application serial No._____.

[ ] Preliminary Amendment

[X] Return receipt postcard (MPEP 503)

[X] Assignment Papers (assignment cover sheet and assignment documents)

[X] A check in the amount of $40.00 for recording the Assignment.

[ ] Assignment papers filed in parent application Serial No. _____.

[ ] Certification of chain of title pursuant to 37 C.F.R. § 3.73(b).

[ ] This is a [ ] continuation [ ] divisional [ ] continuation-in-part (C-I-P) of prior application serial no. _____.

[ ] Cancel in this application original claims _____ of the parent application before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)

[ ] A preliminary Amendment is enclosed. (Claims added by this Amendment have been properly numbered consecutively beginning with the number following the highest numbered original claim in the prior application.

[ ] The status of the parent application is as follows:

[ ] A Petition For Extension of Time and a Fee therefor has been or is being filed in the parent application to extend the term for action in the parent application until _____.

[ ] A copy of the Petition for Extension of Time in the co-pending parent application is attached.

[ ] No Petition For Extension of Time and Fee therefor are necessary in the co-pending parent application.

[ ] Please abandon the parent application at a time while the parent application is pending or at a time when the petition for extension of time in that application is granted and while this application is pending has been granted a filing date, so as to make this application co-pending.

[ ] Transfer the drawing(s) from the patent application to this application.

[ ] Amend the specification by inserting before the first line the sentence:
This is a [ ] continuation [ ] divisional [ ] continuation-in-part of co-pending application Serial No. _____ _____ filed _____.

I. CALCULATION OF APPLICATION FEE (For Other Than A Small Entity)

	Number Filed		Number Extra	Rate	Basic Fee $760.00
Total Claims	6	-20=	0	x$18.00	$ -0-
Independent Claims	1	- 3=	0	x$78.00	$ -0-
Multiple Dependent Claims	[ ] yes [X] no		Additional Fee = Add'l Fee =	$260.00 NONE	$

Total: $ 760.00

[ ] A statement claiming small entity status is attached or has been filed in the above-identified parent application and its benefit under 37 C.F.R. § 1.28(a) is hereby claimed. Reduced fees under 37 C.F.R. § 1.9(F) (50% of total) paid herewith $ _____.

[X] A check in the amount of $ 760.00 in payment of the application filing fees is attached.

[ ] Charge Fee(s) to Deposit Account No. 13-4500. Order No. _____. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

[X] The Assistant Commissioner is hereby authorized to charge any additional fees which may be required for filing this application, or credit any overpayment to Deposit Account No. 13-4500, Order No. 5000-4679. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,

Dated: 8/24/99

Alfred L. Haffner, Jr.
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Docket No. 5000-4679

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Mamoru KUZUYA, Hideaki SHIMA and Masayasu ARAKAWA

Serial No : TBA

Filed : August 24, 1999

For : **AXLE HOUSING ASSEMBLY**

BOX: PATENT APPLICATION - FEE
Assistant Commissioner for Patents
Washington, D.C. 20231

EXPRESS MAIL CERTIFICATE

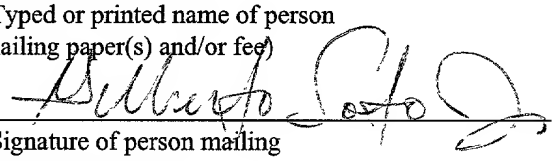
Express Mail Label No. EJ146544085US
Date of Deposit August 24, 1999

I hereby certify that the following attached paper(s) and/or fee

1. New U.S. Patent Application for **REAR AXLE FOR INDUSTRIAL VEHICLES**
   a. 12 pages of specification
   b. 1 page of Abstract
   c. 2 pages of claims
   d. 3 sheets of drawings
   e. 4 pages of Declaration and Power of Attorney
2. Application Fee Transmittal (3 pages, in duplicate)
3. Check for $760.00 for filing fee
4. Assignment Recordation Form Cover Sheet and executed Assignment,
5. Check for $40.00 for recording fee
6. Information Disclosure Statement (1 pages, in duplicate), Form PTO-1449, and two references
7. Claim to Convention Priority (1 page) and certified copy of Japanese Patent Application No. 10-240377 filed August 26, 1999
8. Return receipt post card

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Box: Patent Application - FEE, Washington, D.C. 20231.

Gilberto Soto, Jr.
(Typed or printed name of person mailing paper(s) and/or fee)



(Signature of person mailing paper(s) and/or fee)

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AXLE HOUSING ASSEMBLY

BACKGROUND OF THE INVENTION

The present invention relates to an axle housing assembly for receiving a drive axle for an industrial vehicle such as a forklift or the like, and more particularly to a support structure for supporting an axle housing against a drive repulsive force.

DESCRIPTION OF THE RELATED ART

In a forklift, usually, front wheels are drive wheels, and a front axle for transmitting a drive force to the front wheels and a differential gear are received in the axle housing. As shown in Fig. 3, a conventional general axle housing 1 is composed of a differential housing 2 and axle tubes 4 connected, respectively, to right and left opening portions 3 of the differential housing 2 for receiving a front axle. The differential gear is supported by a differential carrier 5. The differential carrier 5 is fastened by bolts to a rear opening portion of the differential housing 2. Furthermore, a rear cover 6 is fastened by bolts to the rear side of the differential carrier 5. Also, the axle housing 1 is supported to a base frame 8 by fastening, by bolts, axle brackets 7 fitted to each axle tube 4 to side members 9 of the base frame 8.

A type in which the axle housing 1 is separated from an engine portion in order to suppress transmission of vibrations from the engine portion (including a transmission) becomes popular. In such a separation type axle housing 1, in order to resist the drive repulsive force generated during a starting operation, a braking operation or the like, the axle brackets 7 are fixed by repulsive force receiving bolts 11 to repulsive force receiving portions 10 formed in the rear cover 6.

In order to coupling the axle brackets 7 and the repulsive force receiving portions 10 of the rear cover 6 with each other by the bolts 11, it is necessary to enhance a dimensional precision of the axle brackets 7, the axle tubes 4, the differential housing 2, the differential carrier 5 and the rear cover 6 as well as the assembling precision thereamong and to align screw holes 12 formed in the repulsive force receiving portions 10 of the rear cover 6 and through holes 13 formed in the axle brackets 7 in a coaxial manner.

However, these components are cast products. Accordingly, there is a problem that it is difficult to severely enhance the dimensional precision. Also, since the number of the components is large, a problem arises in which, as a result of accumulation of tolerance, an axis of the screw hole 12 of the rear cover 6 is displaced with respect to an axis of the through hole 13 of the

axle bracket 7. Accordingly, it is troublesome to manufacture the axle housing 1 and assemble the component to the base frame 8, resulting in the increased cost.

Also, in order to ensure the coupling by the bolts 11, it is necessary to bring the axle brackets 7 into contact with the repulsive force receiving portions 10. However, in the case where the right and left axle brackets 7 are fixed to the corresponding side members 9 of the base frame 8 as in the above-described conventional structure, in many cases, a gap between the axle brackets 7 and the repulsive force receiving portions 10. Thus, it requires a troublesome shim adjustment.

SUMMARY OF THE INVENTION

In view of the above-noted defects, an object of the present invention is to provide an axle housing assembly that may assemble an axle housing into a base frame with ease and support the axle housing thereto without highly increasing a dimensional precision.

In order to attain the above-mentioned object, according to the present invention, there is provided an axle housing assembly comprising an axle housing having a differential housing with a body thereof and a pair of axle tubes mounted on the body, a support means for supporting the axle housing to a base frame and a repulsive force receiving member provided on the body of the differential

housing for coupling the differential housing integrally with the support means.

BRIEF DESCRIPTION OF THE DRAWINGS

In the accompanying drawings:

Fig. 1 is a frontal view showing an axle housing assembly according to the present invention;

Fig. 2 is a left side elevational view showing the axle housing assembly shown in Fig. 1; and

Fig. 3 is an exploded perspective view showing a conventional axle housing assembly.

DESCRIPTION OF THE PREFERRED EMBODIMENT

A preferred embodiment of the present invention will now be described in detail with reference to Figs. 1 and 2.

In Fig. 1, an axle housing 20 is of a type which is separated away from an engine portion, and is provided with a differential housing 22 receiving a differential gear (not shown) and axle tubes 24 extending on the right and left of a body 22a of the differential housing 22. Axle brackets 26a and 26b are mounted on the axle tubes 24. The axle brackets 26a and 26b are fastened to corresponding side members 28 of a base frame by bolts so that the axle housing

20 is supported to the base frame.

The shown differential housing 22 in accordance with the embodiment is of a type in which the differential carrier for carrying the differential gear is integrally molded. A front cover 22b mounted on a front opening portion of the body 22a is removed away, and gears constituting the differential gear may be assembled in through the opening portion. Also, a rear opening portion is formed in the body 22a of the differential housing 22. A rear cover 22c for closing this opening portion is fastened to the rear portion of the body 22a by bolts.

An circular opening portion is formed in each of the right and left sides of the differential housing 22. A front axle (not shown) which is a drive axle connected to the differential gear within the differential housing 22 extends through the opening portion sideways. A boss 34 is formed on the periphery of each opening portion. A plurality of screw holes for coupling the corresponding axle tube 24 are formed in each boss 34.

Within each axle tube 24, the front axle is disposed coaxially with the axle tube. A proximal end portion of each axle tube 24 is fitted to the corresponding opening portion of the differential housing 22 in a shrink fit manner. Also, a flange 36 projects at a position away from the proximal end at a predetermined distance on the circumferential surface of each axle tube 24. A

plurality of through holes are formed in each flange 36 corresponding to the screw holes of the boss 34.

In the case where such an axle tube 24 is coupled with the differential housing 22, the proximal end portion of the axle tube 24 is inserted into the corresponding opening portion of the differential housing 22, the through holes of the flange 36 are aligned with the corresponding screw holes of the boss 34, and the axle tube 24 is pressingly inserted until the flange 36 comes into contact with the boss 34. Thus, the bolts 38 are screwed into the screw holes through the through holes so that each axle tube 24 is fixed to the differential housing 22 to assemble the axle housing 20.

Each of the axle brackets 26a and 26b is substantially fan-shaped with its proximal portion being formed integrally with a ring portion 40. An inner diameter of the proximal ring portion 40 is substantially identified with an outer diameter of the axle tube 24 so that the proximal ring portion is slidably inserted into the axle tube 24. A plurality of through holes are formed in the arcuate circumferential portion of each of the axle brackets 26a and 26b. These through holes are formed to correspond, in number, to the through holes formed in the front edge portion of the side member 28 of the base frame. In the case where the axle housing 20 is arranged at a suitable support position to the base frame,

so that the through holes of the axle brackets are positioned to be aligned with the corresponding through holes of the side members 28. Accordingly, the through holes of the axle brackets 26a and 26b and the through holes of the side members 28 are aligned with each other and the bolts 42 are passed through with nuts 44 so that the axle brackets 26a and 26b are fixed to the side members 28 and the axle housing 20 are supported to the base frame.

Thus, the axle housing 20 supported to the base frame is subjected to the drive repulsive force at the time of start, brake or the like of the forklift and is urged to be rotated back and forth about the axis of the proximal ring portion 40 of each of the axle brackets 26a and 26b. For this reason, in the embodiment shown, one of the axle bracket (axle bracket on the left side in the forward traveling direction of the vehicle) 26a is coupled with the body 22a of the differential housing 22 by using a repulsive force receiving bolt 46.

More specifically, a convex portion is formed as a repulsive force receiving portion 48 integrally with an upper portion of the left side of the body 22a. In the repulsive force receiving portion 48, a through hole 50 is formed in parallel with the axle tubes 24 for receiving the repulsive force receiving bolt 46. Also, a through hole 52 through which the repulsive force receiving bolt 46 passes is formed in the axle bracket 26a. The through hole 52

is positioned to be aligned coaxially with the through hole 50 of the repulsive force receiving portion 48 under the condition that the axle housing 20 is located at a predetermined position to the base frame and supported by the axle brackets 26a and 26b. The through hole 52 passes through a thick portion 54 projected on the right side surface of the axle bracket 26a. The thick portion 54 has such a dimension that its distal end face is in contact with the left side surface of the repulsive force receiving portion 48 under the condition that the axle bracket 26a is suitably located at the axle housing 20.

The stem portion of the repulsive force receiving bolt 46 is caused to pass through the through hole 52 of the axle bracket 26a and the through hole 50 of the repulsive force receiving portion 48 and a nut 58 is screwed to the screw portion 56 projecting from the through hole 50. Thus, the axle bracket 26a and the repulsive force receiving portion 48 are fastened between the head portion of the repulsive force receiving bolt 46 and the nut 58. Since the axle bracket 26a is fixed to the side member 28 of the base frame, in the case where the drive repulsive force occurs for rotating the axle housing 20 back and forth, the drive repulsive force is received by the repulsive force receiving portion 48 on the differential housing 22 and the repulsive force receiving bolt 46 supported by the axle bracket 26a so that the rotation of the axle housing 20 is prevented.

In the above-described arrangement, the assembling order of the axle housing 20 to the side members 28 of the base frame will now be described. The assembling work of the front axle and the differential gear into the axle housing 20 and the coupling work between the engine portion and the differential gear which are carried out together with the assembling work of the axle housing 20 are substantially the same as those of the conventional structure. Accordingly, the detailed explanation thereof will be omitted herein.

First of all, in order to assemble the axle housing 20, as described above, the proximal portions of the axle tubes 24 are inserted into the right and left opening portions of the differential housing 22, respectively, and fixed by bolts. Subsequently, the proximal ring portions 40 of the axle brackets 26a and 26b corresponding to the respective axle tubes 24 are fitted.

Thereafter, the through hole 52 of the axle bracket 26a and the through hole 50 of the repulsive force receiving portion 48 of the differential housing 22 are aligned with each other. Since the restriction of the positional relationship between the through holes 50 and 52 is performed only by three components, i.e., the axle bracket 26a, the axle tube 24 and the body 22a of the differential housing 22, the displacement caused by the accumulation of tolerance is small and the through holes 50 and

52 may be aligned exactly with each other without needs of the severe dimensional precision.

Subsequently, the repulsive force receiving bolt 46 is caused to pass through these through holes 50 and 52, and the nut 58 is screwed around the bolt 46 to thereby fasten the axle bracket 26a and the repulsive force receiving portion 48 with each other. In the conventional case, in order to fasten both the right and left axle brackets with the right and left repulsive receiving portions, after tentatively fixing the repulsive force receiving portions and the axle brackets with each other, the axle brackets are fixed to the base frame. It is necessary to check whether any gap is formed between the repulsive force receiving portions and the axle brackets or not. Then, the axle bracket is removed away from the base frame, the shim adjustment is performed if necessary, and the repulsive force receiving bolt is fastened. In contrast, in the embodiment shown, since only one of the axle brackets 26a is fixed to the repulsive force receiving portion 48 of the differential housing 22, there is no problem in the gap of the side member 28 of the base frame. Before the axle brackets 26a and 26b are fixed to the side members 28, it is possible to fasten the repulsive force receiving bolt 46 and the nut 58 with a sufficient torque.

Of course, in the case where a gap is formed between the

thick portion 54 of the axle bracket 26a and the repulsive force receiving portion 48 due to the manufacturing error or the like of the axle bracket 26a, the shim adjustment is to be performed. However, unlike the conventional case, since the shim adjustment may be performed before the assembling work of the axle brackets 26a and 26b to the side members 28 of the base frame, its work is very facilitated.

After the axle brackets 26a and the repulsive force receiving portion 48 are coupled with each other by the repulsive force receiving bolt 46, in the same manner as in the conventional case, the right and left axle brackets 26a and 26b are fixed to the corresponding side members 28 of the base frame by the bolts 42 and the nuts 44, thereby completing the assembling work.

Incidentally, after the axle brackets 26a and 26b are fixed to the base frame, the head portion of the repulsive force receiving bolt 46 is covered by a brake drum (not shown). Accordingly, it is impossible to rotate this bolt by clamping the bolt head portion by a wrench or the like. However, in the embodiment shown, since the nut 58 is exposed above the differential housing 22, it is possible to rotate it by the wrench. Accordingly, in the maintenance or after the assembling work, it is possible to perform the adjustment of the refastening work of the repulsive force receiving bolt 46.

As described above, the preferred embodiment of the present invention has been fully explained. It goes without saying that the present invention is not limited to the above-described embodiment. For example, in the above-described embodiment, the differential housing 22 is formed integrally with the differential carrier but if the repulsive force receiving portion may be provided on the differential housing, it is possible to apply to the present invention thereto even if the differential housing and the differential carrier are discrete members.

Also, since the axle bracket 26a may be firmly coupled with the repulsive force receiving portion 48 before assembling the axle housing 10 to the base frame, the through hole 50 of the repulsive force receiving portion 48 is replaced by a screw hole and at the same time, the nut 58 is dispensed with so that the repulsive force receiving bolt 46 may be threaded with the screw hole.

Furthermore, the present invention may be applied to any industrial vehicles other than the forklift, and for example, may be applied to a shovel loader or the like.

As described above, according to the preset invention, without needs of the severe dimensional precision, the axle housing may readily be assembled into the base frame to be supported. Accordingly, it is possible to manufacture the axle housing or the base frame with ease and in low cost.

WHAT IS CLAIMED IS:

1. An axle housing assembly comprising:

an axle housing having a differential housing with a body thereof and a pair of axle tubes mounted on said body;

a support means for supporting said axle housing to a base frame; and

a repulsive force receiving member provided on the body of said differential housing for coupling said differential housing integrally with said support means.

2. An axle housing assembly according to claim 1, wherein said differential housing has a cover detachably mounted on said body.

3. An axle housing assembly according to claim 1, wherein said support means includes a pair of axle brackets fitted in said pair of axle tubes.

4. An axle housing assembly according to claim 3, wherein said repulsive force receiving member includes a repulsive force receiving bolt for coupling said body with one of said pair of axle brackets.

5. An axle housing assembly according to claim 4, wherein a thick portion projecting toward said body is formed on the one of said pair of axle brackets,

a repulsive force receiving portion being formed on said body,

said repulsive force receiving bolt being caused to pass through said thick portion and said repulsive force receiving portion.

6. An axle housing assembly according to claim 4, further comprising a nut for threadedly engaging with an end portion of said repulsive force receiving bolt,

said nut being located in an upper portion of said differential housing.

ABSTRACT OF THE DISCLOSURE

An axle housing support structure may readily assemble and support an axle housing to a base frame. In the axle housing support structure, the axle housing composed of a differential housing with a body and a pair of axle tubes mounted on right and left sides of the differential housing for receiving a front axle is supported by fixing axle brackets fitted to the axle tubes, respectively, to the base frame. The axle bracket is fastened by using a repulsive force receiving bolt to a repulsive force receiving portion formed integrally with the body of the differential housing.

FIG. 1

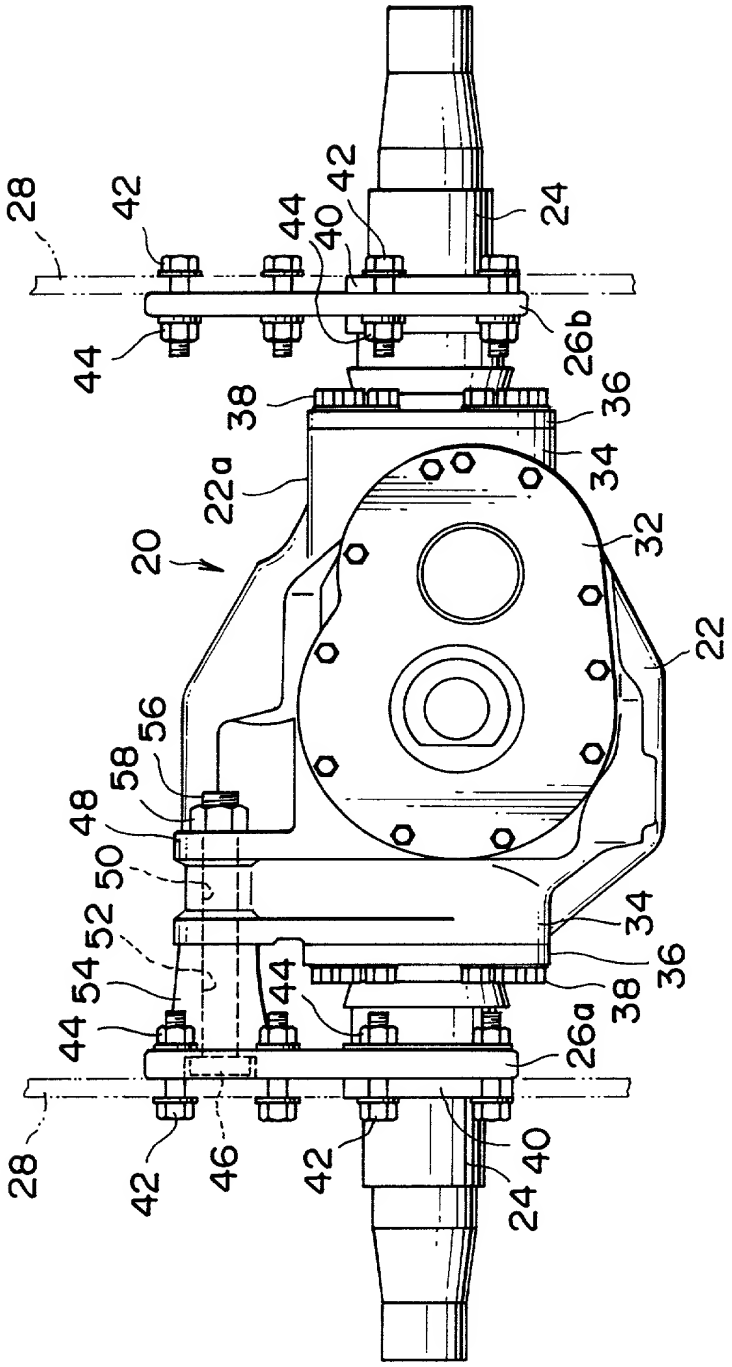


FIG. 2

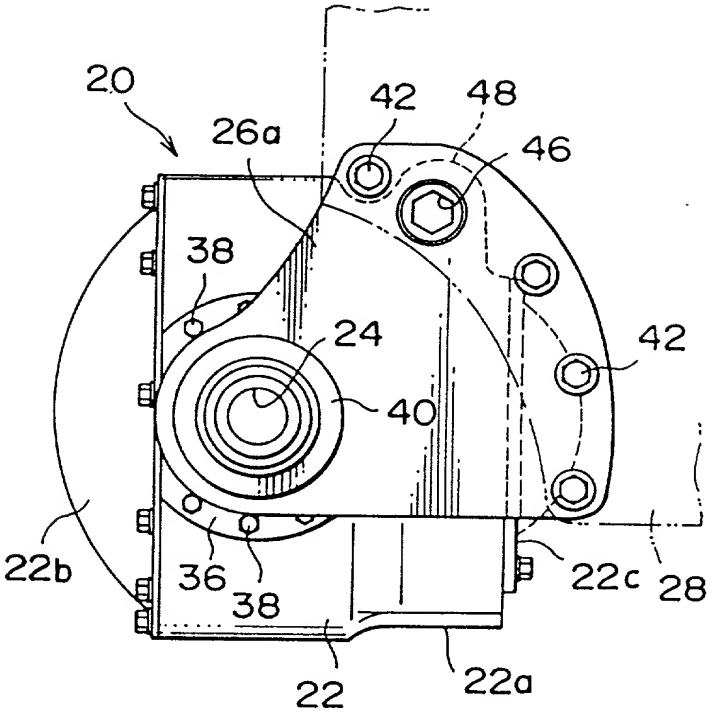
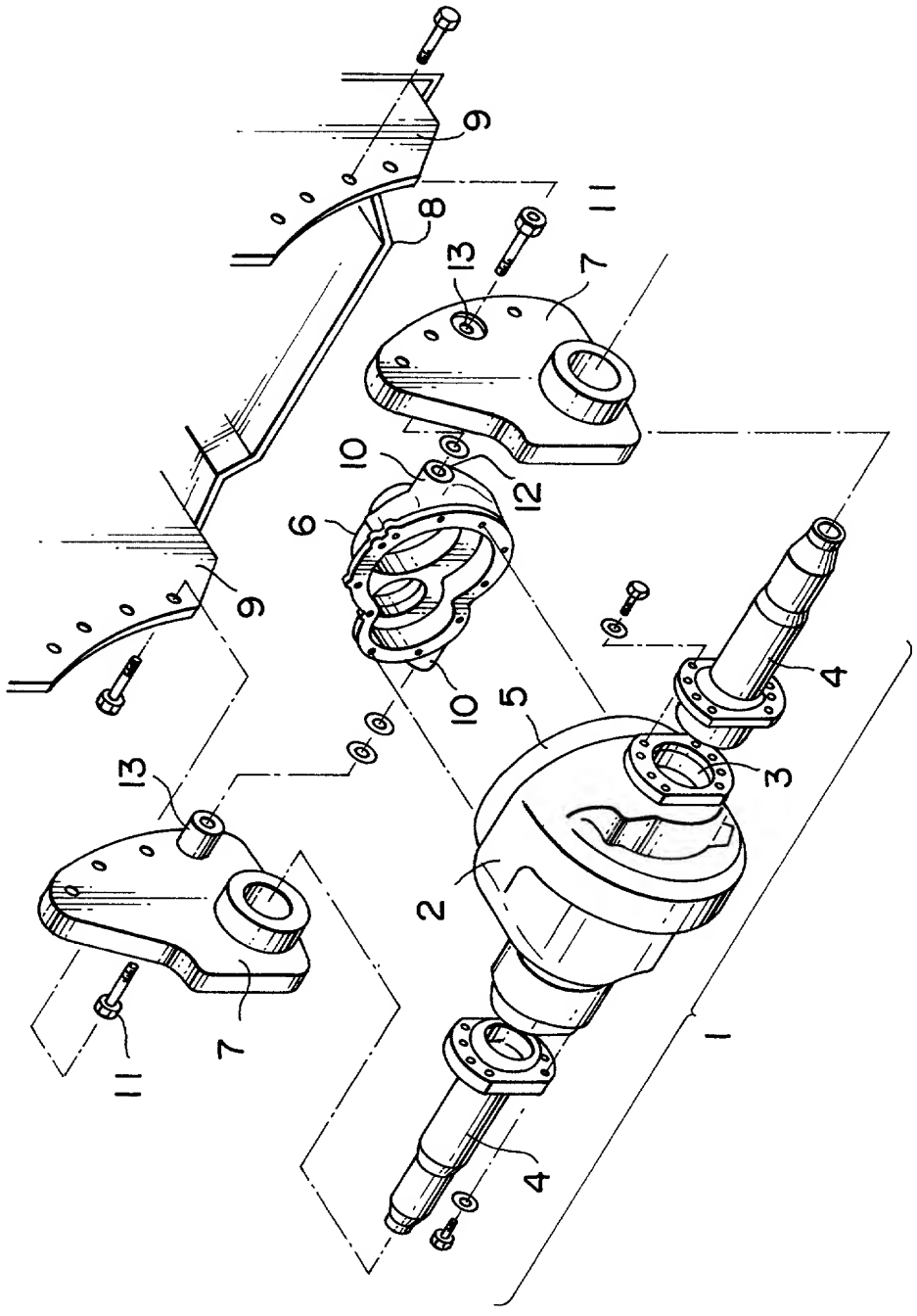


FIG. 3



PTO/SB/106 (8-96)
Approved for use through 9/30/98. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Declaration and Power of Attorney For Patent Application

特許出願宣言書及び委任状

Japanese Language Declaration

日本語宣言書

下記の氏名の発明者として、私は以下の通り宣言します。

As a below named inventor, I hereby declare that:

私の住所、私書箱、国籍は下記の私の氏名の後に記載された通りです。

My residence, post office address and citizenship are as stated next to my name.

下記の名称の発明に関して請求範囲に記載され、特許出願している発明内容について、私が最初かつ唯一の発明者（下記の氏名が一つの場合）もしくは最初かつ共同発明者であると（下記の名称が複数の場合）信じています。

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

AXLE HOUSING ASSEMBLY

上記発明の明細書（下記の欄でx印がついていない場合は、本書に添付）は、

the specification of which is attached hereto unless the following box is checked:

☐ __月__日に提出され、米国出願番号または特許協定条約国際出願番号を_____とし、
（該当する場合）_____ に訂正されました。

☐ was filed on _____
as United States Application Number or
PCT International Application Number
_____ and was amended on
_____ (if applicable).

私は、特許請求範囲を含む上記訂正後の明細書を検討し、内容を理解していることをここに表明します。

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

私は、連邦規則法典第３７編第１条５６項に定義されるとおり、特許資格の有無について重要な情報を開示する義務があることを認めます。

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

PTO/SB/106 (8-96)
Approved for use through 9/30/98. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Japanese Language Declaration
(日本語宣言書)

私は、米国法典第３５編１１９条(a)-(d)項又は３６５条(b)項に基き下記の、米国以外の国の少なくとも一ヵ国を指定している特許協力条約３６５(a)項に基ずく国際出願、又は外国での特許出願もしくは発明者証の出願についての外国優先権をここに主張するとともに、優先権を主張している、本出願の前に出願された特許または発明者証の外国出願を以下に、枠内をマークすることで、示しています。

I hereby claim foreign priority under Title 35, United States Code, Section 119 (a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s) 外国での先行出願 (Number) (番号)	(Country) (国名)	(Day/Month/Year Filed) (出願年月日)	Priority Not Claimed 優先権主張なし
10-240377	Japan	26 / 08 / 1998	☐
			☐

私は、第３５編米国法典１１９条(e)項に基いて下記の米国特許出願規定に記載された権利をここに主張いたします。

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below.

(Application No.) (出願番号)	(Filing Date) (出願日)	(Application No.) (出願番号)	(Filing Date) (出願日)

私は、下記の米国法典第３５編１２０条に基いて下記の米国特許出願に記載された権利、又は米国を指定している特許協力条約３６５条(c)に基ずく権利をここに主張します。また、本出願の各請求範囲の内容が米国法典第３５編１１２条第１項又は特許協力条約で規定された方法で先行する米国特許出願に開示されていない限り、その先行米国出願書提出日以降で本出願書の日本国内または特許協力条約国際提出日までの期間中に入手された、連邦規則法典第３７編１条５６項で定義された特許資格の有無に関する重要な情報について開示義務があることを認識しています。

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s), or 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of application.

(Application No.) (出願番号)	(Filing Date) (出願日)	(Status: Patented, Pending, Abandoned) (現況：特許許可済、係属中、放棄済)

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Japanese Language Declaration
(日本語宣言書)

委任状： 私は下記の発明者として、本出願に関する一切の手続きを米特許商標局に対して遂行する弁理士または代理人として、下記の者を指名いたします。（弁護士、または代理人の氏名及び登録番号を明記のこと）

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith *(list name and registration number)*

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